



## Students' mental health status and its related factors in Sanandaj City Universities, Iran, 2016

Shokreyeh Salavati<sup>1</sup>, Ahmad Vahabi<sup>2</sup>, Mahnaz Sayyadi<sup>3</sup>, Sana Zandi<sup>4</sup>, Boshra Vahabi<sup>4</sup>

1 Department of Public Health, Faculty of Health, Kurdistan University of Medical Sciences, Sanandaj, Iran

2 Assistant Professor, Department of Medical Laboratory Sciences, Faculty of Paramedical, Kurdistan University of Medical Sciences, Sanandaj, Iran

3 Ghods Hospital of Paveh, Kermanshah University of Medical Sciences, Kermanshah, Iran

4 Student of Medicine, Student Research Committee, Kurdistan University of Medical Sciences, Sanandaj, Iran

### Original Article

#### Abstract

**BACKGROUND:** Mental health is considered as one of the most important factors in the promotion and development of people. This is very important, especially in students. This study aimed to determine the students' mental health status in Sanandaj City universities, Iran, during the year 2016.

**METHODS:** In this cross-sectional study, the samples were 1100 students in Kurdistan University, Islamic Azad University of Sanandaj, and Kurdistan University of Medical Sciences. The samples were selected using stratified random sampling method with proportional allocation. The data were collected using General Health Questionnaire (GHQ) including 28 questions to assess mental health status.

**RESULTS:** The average score of mental health among the students was  $32.10 \pm 12.00$ . The highest and the lowest frequency of mental disorders were related to aspects of social functioning ( $11.24 \pm 3.62$ ) and depression ( $5.53 \pm 5.24$ ), respectively. The students of Kurdistan University of Medical Sciences had better mental health than the other students in all aspects of mental health. There was a significant relationship between mental health with gender ( $P = 0.060$ ), and marital status ( $P = 0.010$ ).

**CONCLUSION:** The findings of the study showed that parents, educational environment, economic situation of families, and students' current home have important role in their mental health.

**KEYWORDS:** Mental Health, Universities, Students, Major Depressive Disorder

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### Introduction

One of the important factors affecting youth, which creates major changes in their social, family, and personal life, is entry to university. Students' life is a very important and critical part of their life. In this period of time, one of the most important components of public health, which is mental health issue, must be given special attention.<sup>1-3</sup> Mental health is considered as one of the most important

factors in development of human beings. This is especially important for students. Although students are considered to be the preferred community, various studies indicated that students are also suffering from a variety of emotional disorders.<sup>4,5</sup> These disorders begin with mild anxiety, and end in various disorders of psychosomatic, neurotic, and even psychotic.<sup>6</sup> Based on World Health Organization (WHO) report, more than 450 million people around the world live with a kind of mental disorders.<sup>7</sup> More than 15% of all recognized diseases around the world are mental health disorders.<sup>8</sup>

#### Corresponding Author:

Ahmad Vahabi

Email: [vahabiahmad@gmail.com](mailto:vahabiahmad@gmail.com)

Mental health is one of the most important components of public health that provides a balance in life, and resistance against the problems for people. Psychosocial problems impose a significant pressure on individuals; as predicted, in 2020 depression has the highest cost for community health systems after heart diseases.<sup>1,9</sup> Failure of having mental health impairs development of individual, and causes some problems for his/her ability to perform his/her duties, which leads to a lack of community development and consequences of it.<sup>10</sup> It is important to pay attention to the mental health of students, because they are considered as the main and important pillars of universities. One of the important components of creating mental health among students is their attitude and satisfaction with the field of study, which itself is also considered as a strong and important stimulus to motivate them, which improves the quality of education and academic achievement.<sup>11</sup>

The conducted researches in Iran revealed that university students have different mental and emotional disorders. In creating these problems, factors such as lack of social support, students' unfamiliarity with the university environment at the time of their entry to university, separation and distance from the family, lack of interest in the field of study, incompatibility with the dormitory environment and his/her roommates, lack of amenities, and economics can play a role.<sup>12-15</sup> Gallagher<sup>16</sup> and Mackean<sup>17</sup> conducted that university students had increased mental health problems such as depression, suicidal thoughts, psychosis, anxiety, addictions, risk for suicide, use of psychiatric medications, and other chronic psychiatric disorders compared to general population. In the study of Movlazzadeh *et al.*, 69.7% of the students had mental health problems, and there was a significant and inverse relationship between

the mean score of the previous semester with depression and social function.<sup>18</sup> In another study, Anbari *et al.* concluded that the students were not in good health status, and had a mild impairment.<sup>10</sup>

This study was designed to determine mental health status among the students in Kurdistan University, Islamic Azad University, and Kurdistan University of Medical Sciences, in Sanandaj City, Iran, in year 2016.

## Materials and Methods

The present research was a cross-sectional study. Study population consisted of students in Kurdistan University, Islamic Azad University of Sanandaj, and Kurdistan University of Medical Sciences. The study population in 3 surveyed universities was about 12000 students. Based on cluster random sampling method, 1100 cases of them were selected. Among 3000, 4500, and 5500 students in Kurdistan University of Medical Sciences, Kurdistan University, and Islamic Azad University, 250, 400, and 450 cases, were selected and surveyed, respectively. Each university was considered as a cluster; in each university, several colleges, and in each college, several classes were randomly selected and finally, students of those selected classes were surveyed. Inclusion criteria included being student in Universities of Kurdistan, Medical Sciences, and Islamic Azad, willing to participate in the study, and having spent at least two semesters. Not having of any inclusion criteria was considered as exclusion criterion.

To examine the mental health status of the surveyed students, the Goldberg's General Health Questionnaire was used. The questionnaire has 28 questions, known as the GHQ28, and was made by Goldberg in 1972 to examine the general health status of individuals.<sup>19</sup> The Persian version of this questionnaire has been used in several studies, and its validity and reliability have been verified from 0.79 to 0.85.<sup>10,20,21</sup> In this study,

the Persian version of the questionnaire was used. The questionnaire contains 28 questions in 4 dimensions including physical symptoms, anxiety and sleep disorders, social function disorders, and depression. Each of the fields has 7 questions.

The scale of the questionnaire has 4 points; 0 (no), 1 (a little), 2 (much), and 3 (very much). Therefore, the score for each domain is 0 to 21 and the total score of the questionnaire will vary from 0 to 84 for each person. Scores from 0-22 are considered as the lack of mental disorders, 23-40 indicate a mild mental disorder, 41-60 indicate a moderate mental disorder, and scores from 61 to 84 are considered to be severe mental disorders. The remarkable point in this questionnaire is that achieving a high score on a scale indicates more symptoms of mental health disorders, in other words lower general health. Getting lower score in this research, represents the least symptoms of mental health disorders, and indicates more and higher general health.

For data collection from the studied individuals, the researchers went to the selected classes. Before the study, explanations were given to the students about the importance of the study. We requested the samples to complete the questionnaires carefully. Participation in the study was optional for the students, and they were not forced to do this. They did not need to write their names and other identifiable specifications.

The collected data were entered into the computer. To describe the collected data, descriptive statistics including frequency, mean, and standard deviation (SD) were used. Mann-Whitney and Kruskal-Wallis statistical tests were used to analyze the collected data, and the relationship between mental health and demographic characteristics. In all statistical tests,  $P < 0.05$  was considered significant.

## Results

1034 cases (94%) completed and returned the

questionnaires. Their mean age was  $22.27 \pm 3.40$  years with the minimum and maximum of 18 and 45 years, respectively. The mean score of mental health among the respondents was  $32.10 \pm 12.00$ . These scores were  $32.45 \pm 10.82$ ,  $27.22 \pm 12.86$ , and  $34.55 \pm 11.66$  in the students of Kurdistan University, Kurdistan University of Medical Sciences, and Islamic Azad University of Sanandaj, respectively. Of the total number of studied students, 261 (25.2%) had no mental disorders, and 773 (74.8%) had mental disorders. Among the students in Kurdistan University of Medical Sciences, 126 (51.2%) had psychiatric disorders, and 120 (48.8%) had suitable mental health, and had no mental disorders. In Kurdistan University, 278 students (79.9%) had mental disorders, and 70 (20.1%) of them had no mental disorders. 369 students (83.9%) in Islamic Azad University had psychiatric disorders, and 71 (16.1%) had no mental disorders.

Of the total students, 240 (23.2%) had no mental disorders, and 534 (51.6%), 248 (24%), and 12 (1.2%) of them had mild, moderate, and severe mental disorders. The amounts were 114 (46.3%), 92 (37.4%), 37 (15%), and 3 (1.2%) students in Kurdistan University of Medical Sciences, 64 (18.4%), 190 (54.6%), 92 (26.4%), and 2 (0.6%) students in Kurdistan University, and 62 (14.1%), 252 (57.3%), 119 (27%), and 7 (1.6%) students in Islamic Azad University, respectively.

Of the studied students, 32.1% were boys, and 83% were single (Table 1). Moreover, 80.4% were in bachelor, 17.2% in Masters and higher degrees, and the others were assistant.

There was a significant difference in mental health, based on the marital status; as it was better among single students ( $1.13 \pm 0.43$ ) compared to married students ( $2.21 \pm 0.40$ ) ( $P = 0.01$ ).

Most of the studied subjects had a father with university education and a mother with high school education (Table 1).

**Table 1. Frequency, percentage, and mean scores of mental health among the studied students and their relationship with different variables in year 2016**

Variable		n (%)	Mean $\pm$ SD	T	P
Gender	Boy	332 (32.1)	1.11 $\pm$ 0.42	-1.87	0.060
	Girl	702 (67.9)	1.16 $\pm$ 0.43		
Marital status	Single	858 (83.0)	1.13 $\pm$ 0.43	-2.44	0.010
	Married	176 (17.0)	1.22 $\pm$ 0.40		
Variable		n (%)	Mean $\pm$ SD	F	P
Degree	Assistant	25 (2.4)	1.00 $\pm$ 0.45	7.44	0.001
	Bachelor	831 (80.4)	1.17 $\pm$ 0.41		
	Masters and higher	178 (17.2)	1.35 $\pm$ 0.47		
Father's education	Illiterate	79 (7.6)	1.10 $\pm$ 0.39	2.16	0.070
	Elementary	172 (16.7)	1.16 $\pm$ 0.48		
	Guidance	164 (15.9)	1.22 $\pm$ 0.39		
	High school	232 (22.4)	1.15 $\pm$ 0.40		
Mother's education	Academic	387 (37.4)	1.12 $\pm$ 0.44	1.88	0.110
	Illiterate	168 (16.2)	1.10 $\pm$ 0.48		
	Elementary	214 (20.7)	1.12 $\pm$ 0.45		
	Guidance	197 (19.1)	1.21 $\pm$ 0.35		
Current home	High school	239 (23.1)	1.15 $\pm$ 0.43	5.09	0.006
	Academic	216 (20.9)	1.14 $\pm$ 0.42		
	With family	494 (47.8)	1.19 $\pm$ 0.42		
	Single house	95 (9.2)	1.15 $\pm$ 0.38		
University	student dormitory	445 (43.0)	1.10 $\pm$ 0.44	31.33	< 0.001
	Medical Sciences	246 (23.8)	0.97 $\pm$ 0.46		
	Kurdistan	348 (33.6)	1.16 $\pm$ 0.39		
	Islamic Azad	440 (42.6)	1.23 $\pm$ 0.41		

SD: Standard deviation

There was a significant difference between students' educational level and their mental health ( $P = 0.001$ ). Associate students had higher mental health than the others.

There was a significant difference between the current home and mental health status ( $P = 0.006$ ). Students residing in the student dormitories had better mental health than the others.

There was a significant difference between the university and students' mental health ( $P < 0.001$ ). The students from Kurdistan University of Medical Sciences had better mental health status than the others; and the

students of Kurdistan University had better mental health status than the students from Islamic Azad University.

The results of the study revealed that, there was no significant differences in mental health based on parents' literacy ( $P > 0.050$ ).

Based on degree of the students, social functional disorder had the highest and depression had the lowest score between the studied students, respectively (Table 2).

Except in the case of depression, there was a significant difference between the other dimensions of mental health and degree.

**Table 2. Mean and standard deviation of the scores in different dimensions of mental health among the students according to their degree in year 2016**

Examined dimensions	Assistant	Bachelor	Masters and higher	$\chi^2$	P
Physical signs	0.91 $\pm$ 0.64	1.13 $\pm$ 0.56	1.02 $\pm$ 0.67	9.92	0.007
Anxiety and sleep disorders	0.91 $\pm$ 0.73	1.11 $\pm$ 0.64	0.95 $\pm$ 0.68	10.63	0.005
Social functional disorder	1.52 $\pm$ 0.47	1.63 $\pm$ 0.51	1.51 $\pm$ 0.54	8.55	0.010
Depression	0.64 $\pm$ 0.70	0.81 $\pm$ 0.76	0.72 $\pm$ 0.70	2.70	0.260

**Table 3: Mean and standard deviation of the scores in different dimensions of mental health among the students according to their university in year 2016**

Examined dimensions	Medical Sciences	Kurdistan	Islamic Azad	$\chi^2$	P
Physical signs	0.91 $\pm$ 0.62	1.12 $\pm$ 0.52	1.22 $\pm$ 0.57	47.01	< 0.001
Anxiety and sleep disorders	0.88 $\pm$ 0.67	1.08 $\pm$ 0.62	1.19 $\pm$ 0.65	36.25	< 0.001
Social Functional Disorder	1.53 $\pm$ 0.49	1.64 $\pm$ 0.48	1.62 $\pm$ 0.56	6.24	0.040
Depression	0.57 $\pm$ 0.66	0.79 $\pm$ 0.71	0.91 $\pm$ 0.79	34.87	< 0.001

Bachelor students were more disturbed than other students in terms of anxiety and sleep disorders compared with other students and other aspects of mental health.

Based on the university, students from Islamic Azad University of Sanandaj had a worse mental health status than other universities; and students from Kurdistan University of Medical Sciences had a better mental health status than the others (Table 3).

There was a significant difference between all dimensions of mental health and university of education. The median score of the physical aspect among the students in Islamic Azad University was higher than other students, meaning that in this aspect of mental health, students of Islamic Azad University had a higher degree of disorder than other students and other aspects of mental health.

## Discussion

This research, which studies mental health status and its related factors among the students of Kurdistan University of Medical Sciences, Kurdistan University, and Islamic Azad University of Sanandaj, indicates that the mental health status among the studied students was not very favorable, and about 75% of them had mental disorders. Although about 52% of the students in Kurdish University of Medical Sciences had some kinds of psychiatric disorders, compared to the students from Kurdistan and Islamic Azad universities, they were in a better position. Among three studied universities, Islamic Azad University of Sanandaj was ranked as the worst, and then was the Kurdistan University.

In a study by Dadkhah *et al.*, the rate of

mental disorders among the studied students was 28%,<sup>14</sup> that is not consistent with the findings of the present study. One of the reasons for the differences between these studies can be due to the studied population in two researches. Another difference may be to the interval between the two studies. For the time being, student problems, employment, marriage, etc. have increased, and studied students in this research have fewer mental health and more mental disorders than the students who have been studied in previous years. Another reason for this difference is the variety of disciplines studied in this research, which included various disciplines in the medical field, humanities, and engineering departments, while Dadkhah *et al.*<sup>14</sup> studied medical students only. In some researches from Iran, rate of mental disorders were various.<sup>6,10,14,15,22-27</sup>

For example, in a study by Namdar Areshtanab *et al.*, the average of mental health score of the students was 25.71  $\pm$  11.02. The highest and lowest mean score in their study were related to the dimensions of social function and depression, respectively.<sup>24</sup> The findings of our study showed that the average score of mental health of the studied students was 32.10  $\pm$  12.00. In the present study, Kurdistan University of Medical Sciences students' had a mean score of 27.22  $\pm$  12.87 that is consistent with the mean score of the findings in the study of Namdar Areshtanab *et al.*<sup>24</sup> The highest and lowest mean score of this study was related to the dimensions of social function and depression, which is consistent with Namdar Areshtanab *et al.*<sup>24</sup> findings.

A study in Sabzevar universities, Iran,



showed that 39.0% of the surveyed students were suspected to mental or physical disorders. Among them, 32.3% had physical impairment, 35.9% had anxiety disorder, 57.8% had social functional disorder, and 23.7% had depression.<sup>23</sup> The results of the present study conducted that social functional disorders had the highest score among 4 components of mental health, and depression had the lowest score. In our research, more than half of the samples had mental health disorders. This finding is similar to the results of Parvizrad et al.,<sup>3</sup> Behrouzian and Neamatpour,<sup>28</sup> Ahmadi,<sup>29</sup> and Zeighami and Pour Bahaadini Zarandi.<sup>30</sup>

The results of this study showed that there was no statistically significant relationship between gender and mental health. This finding is similar to the results of Namdar Areshtanab et al. in Tabriz University of Medical Sciences,<sup>24</sup> Zare et al. in Shiraz University of Medical Sciences,<sup>31</sup> and also Parvizrad et al.,<sup>3</sup> Tavakolizadeh and Khodadadi,<sup>22</sup> and Adham et al.<sup>32</sup> in other cities of Iran; but this finding is not consistent with the results of the study by Mehri and Sedighy Some-Koochak;<sup>23</sup> because in their study, there was a significant difference between the level of anxiety and gender, and men were more anxious than women.

In this study, it was found that single students had better mental health than married students, and there was a significant difference between them. This finding is consistent with Parvizrad et al.<sup>3</sup> and Farahbakhsh et al.,<sup>33</sup> but in a study by Mohammadzadeh et al.,<sup>25</sup> there was no significant difference between marital status and mental health.

There was a significant difference between students' educational level and mental health status. Associate students had better mental health than the others. This finding is not similar to the findings of the studies in Tabriz,<sup>24</sup> Ilam,<sup>25</sup> and Mazandaran University of Medical Sciences<sup>3</sup> in Iran.

There was a significant difference between

the current location and mental health status of the students. Students residing in student dormitories had better mental health than the others. In a study conducted in Ilam University, students who lived with their parents had a better mental health status compared to the students who lived in student dormitories and single residences.<sup>25</sup>

The results of statistical analysis showed that except for disorders in social function, there was a significant difference between all dimensions of mental health and field of study. There was a significant difference between students' age and all aspects of mental health. In a study by Yousefi et al.,<sup>20</sup> 41% of the surveyed students had mental disorders; but in a study by Anbari et al.,<sup>10</sup> the rate of mental disorders was mild.

## Conclusion

The findings of the present study revealed that mental health status was bad among the respondents, and more than half of the respondents had mental health disorders. The findings of this study show the important role of parents, educational environment, household economics, and the current residence of the students, and students with educational and welfare facilities have higher levels of mental health. It is obvious that students surveyed in Kurdistan University of Medical Sciences, which has a better mental health status, and lack of proper educational facilities would cause more mental disorders. Providing more facilities for university students, and especially suitable accommodation facilities, can help them to improve their academic status.

## Conflict of Interests

Authors have no conflict of interests.

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